

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii 96813

September 10, 2021

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

PSF No.:21OD-061

OAHU

Grant of Two (2) Perpetual, Non-Exclusive Easements and Issuance of Construction and Management Right of Entry Permits to (1) City and County of Honolulu, for the use by the Board of Water Supply, for Access and Utility Purposes and for Underground Injection Control Area Purposes, (2) Hawaiian Electric Company, Inc. for Utility Purposes, Kalaeloa, Ewa, Oahu, Tax Map Key: (1) 9-1-031: portions of 001.

APPLICANTS:

City and County of Honolulu, Board of Water Supply (BWS); and
Hawaiian Electric Company, Inc. a Hawaii for profit corporation (HECO).

LEGAL REFERENCE:

Sections 171-13, 55 and 95, Hawaii Revised Statutes (HRS), as amended.

LOCATION:

Portion of Government land located at Kalaeloa, Ewa, Oahu, identified by Tax Map Key: (1) 9-1-031: portions of 001, as shown on the map attached as **Exhibit A**.

AREA:

To be determined, subject to review and approval by the Department of Accounting and General Services, Survey Division.

ZONING:

State Land Use District: Urban
City and County of Honolulu LUO: I-2 Intensive Industrial District

TRUST LAND STATUS:

Trust Land Status: Acquired after 8/59, i.e. non-ceded
DHHL 30% entitlement lands pursuant to the Hawaii State Constitution: No

CURRENT USE STATUS:

Encumbered by Governor's Executive Order No. 4584, dated May 15, 2019, setting aside to Department of Agriculture for agricultural purposes.

CHARACTER OF USE:

For BWS

Right, privilege and authority to construct, use, maintain and repair a right-of-way over, under and across State-owned land for access and utility purposes, and underground injection control area purposes.

For HECO

Right, privilege and authority to construct, use, maintain, repair, replace and remove electrical transmission lines, poles, guy wires and anchors over, under and across State-owned land, including the right to trim and keep trimmed any trees in the way of its appliances and equipment.

TERM:

Perpetual.

COMMENCEMENT DATE:

To be determined by the Chairperson.

CONSIDERATION:

Gratis, pursuant to 171-95(a)(2), HRS.

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

The Final Environmental Impact Statement acceptance notice for the subject project was published in the Office of Environmental Quality Control's *The Environmental Notice* on November 8, 2008

DCCA VERIFICATION:

For HECO

Place of business registration confirmed:	YES <u>X</u>	NO <u> </u>
Registered business name confirmed:	YES <u>X</u>	NO <u> </u>
Applicant in good standing confirmed:	YES <u>X</u>	NO <u> </u>

For BWS - Not applicable. Government agency.

APPLICANT REQUIREMENTS: Applicant shall be required to:

1. Provide survey maps and descriptions according to State DAGS standards and at Applicant's own cost; and
2. Process and obtain approval for the designation of easement from the Department of Planning and Permitting, City and County of Honolulu at Applicant's own cost.

REMARKS:

BWS proposes to build a seawater reverse osmosis desalination facility at the James Campbell Industrial Park (JCIP) in Kalaeloa on a portion of a 20-acre parcel owned by BWS further identified by Tax Map key (1) 9-1-031:028. The proposed desalination facility will initially produce 1.7 million gallons per day (MGD) of potable water for JCIP that will reduce transfers from Central Oahu aquifers, with provisions, as needed, to expand to 5 MGD.

The desalination facility parcel is undeveloped and was previously part of the Barbers Point Naval Air Station and conveyed to BWS. Three exploratory wells have been constructed on the parcel.

Two injection wells 16-inches in diameter and approximately 300 feet deep are proposed to be constructed into the underlying caprock aquifer, which is a designated underground injection control (UIC) area regulated by the State Department of Health (DOH). Salt water for the desalination facility will be provided from 1,600-foot and 2,050-foot-deep basal wells (State Well Nos. 3-1805-013 and 015) located on the northwest corner of the 20-acre parcel. Pretreatment will consist of chemical addition and filtration. The pretreated water will then pass through reverse osmosis membranes producing 1.7 MGD of product (fresh) water and 2.6 MGD of concentrate (brine) in Phase 1, assuming a 43-percent recovery rate. Product water from the desalination process will be post-treated before finally being pumped into the BWS distribution system serving JCIP. The project supports the Ewa Development Plan's directed growth policies with a drought-proof, sustainable high quality local water supply that will enhance water resilience to climate change and reduce water transfers from the Waipahu-Waiawa Water Management Area into Ewa. Staff believes this is a good public infrastructure project and recommends gratis consideration for both easements.

In the future expansion phase of the desalination facility, an estimated 12 MGD of salt water will be pumped from the salt water wells producing 5 MGD of product water and approximately 7 MGD of concentrate. We note that DOH UIC rules require injection wells be located at least a quarter mile from drinking water source wells and therefore, an off-site injection well location along Olai Street within the State Department of Agriculture Feed Lot 40-foot-wide building setback area is being requested. The proposed injection well head will be constructed in an underground vault close to the existing ground elevation within the building setback area.

By its letter dated April 28, 2021 (**Exhibit B**), BWS requested the Board authorize granting two easements; one for access and utility purposes and the other for underground injection control area purposes. In addition, BWS requests authorization for the Consent of the Landowner for an Underground Injection Control Application to the State Department of Health. The requested locations are outlined in red on the map attached to Exhibit B.

HECO also requests an easement for utility lines purposes over the same access and utility easement alignment requested by BWS serving the proposed desalination facility. Staff notes that it is typical for HECO to obtain a separate easement under its own name to maintain its improvements.

Neither applicant has had a lease, permit, easement or other disposition of State lands terminated within the last five years due to non-compliance with such terms and conditions.

Staff did not solicit comments from other government agencies as a similar comment period was conducted in the preparation of the environmental impact statement process.

Written concurrence from the Department of Agriculture on the requested easements was received and kept in file.

RECOMMENDATION: That the Board:

1. Subject to the Applicant fulfilling all of the Applicant requirements listed above, authorize the granting of perpetual non-exclusive easement to City and County of Honolulu, for use by the Board of Water Supply, covering the subject areas for access and utility purposes, and underground injection control area purposes, under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:
 - A. The standard terms and conditions of the most current perpetual easement document form, as may be amended from time to time;
 - B. Review and approval by the Department of the Attorney General; and
 - C. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.
2. Authorize the issuance of a construction and management right-of-entry permit to City and County of Honolulu, for use by the Board of Water Supply under the under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:
 - A. The standard terms and conditions of the most current construction and management right-of-entry permit document form, as may be amended from time to time;

- B. The right-of-entry permit shall expire upon issuance of the requested easements; and
 - C. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.
3. Subject to Applicant Hawaiian Electric Company, Inc. fulfilling all of the Applicant requirements listed above, authorize the granting of perpetual non-exclusive easements to Hawaiian Electric Company, Inc., covering the subject areas for utility purposes, under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:
- A. The standard terms and conditions of the most current perpetual easement document form, as may be amended from time to time;
 - B. Review and approval by the Department of the Attorney General; and
 - C. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.
4. Authorize the issuance of a construction and management right-of-entry permit to Hawaiian Electric Company, Inc. under the under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:
- A. The standard terms and conditions of the most current construction and management right-of-entry permit document form, as may be amended from time to time;
 - B. The right-of-entry permit shall expire upon issuance of the requested easements; and
 - C. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.

Respectfully Submitted,

Barry Cheung

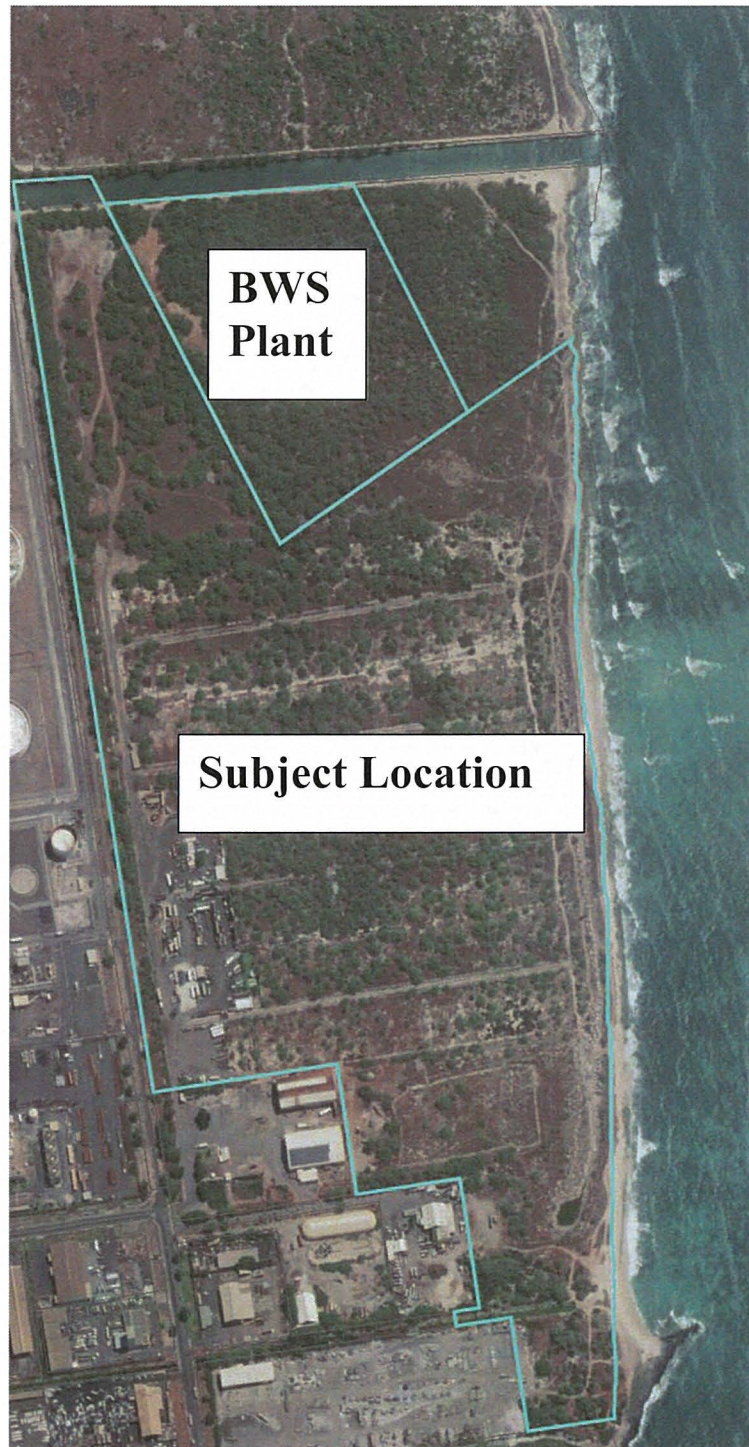
Barry Cheung
District Land Agent

APPROVED FOR SUBMITTAL:

Suzanne D. Case

Suzanne D. Case, Chairperson

RT



TMK (1) 9-1-031: portions of 001

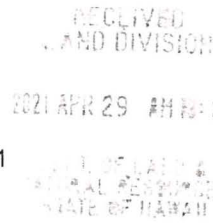
EXHIBIT A

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com



April 28, 2021



RICK BLANGIARDI, MAYOR

BRYAN P. ANDAYA, Chair
KAPUA SPROAT, Vice Chair
RAY C. SOON
MAX J. SWORD
NA'ALEHU ANTHONY

JADE T. BUTAY, Ex-Officio
ROGER BABCOCK, Jr., Ex-Officio

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer

Ms. Suzanne D. Case
Chairperson
Board of Land and Natural Resources
State of Hawaii
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Russell Tsuji, Land Division

Dear Ms. Case:

Subject: Request for Grant of Perpetual, Non-Exclusive Easements and Issuance of Construction Management Right of Entry Over a Portion of Real Property Situate at Ewa, Oahu, Hawaii, and Bearing Tax Map Key 9-1-031:001 for the Board of Water Supply Kalaeloa Seawater Desalination Facility

We request the Board of Land and Natural Resources grant two (2) perpetual, non-exclusive easements and issue a construction right of entry permit to the Board of Water Supply (BWS) for its Kalaeloa Seawater Desalination Facility project over, across and through the State Department of Agriculture feed lot on the subject State property. A map showing the location of the easements is attached for your reference.

The seawater desalination project will produce 1.7 million gallons per day (MGD) of fresh water with accommodations for expansion to 5 MGD. The project supports the Ewa Development Plan's directed growth policies with a drought-proof, sustainable, high quality local water supply that will enhance water resilience to climate change and reduce water transfers from the Waipahu-Waiawa Water Management Area into Ewa.

One easement would be from Olai Street to the desalination facility site, which is located on Tax Map Key 9-1-031:028, to widen the existing access road and existing utility Easement 373. A wider access is desired to provide greater utility clearances and additional distance from the drainage channel located within Easement 771, which may erode over time and damage underground utilities.

The other easement would be adjacent to, and makai (south) of, Olai Street outside the existing feed lot fence line but within the existing 40-foot building setback for two (2)

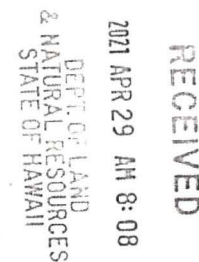
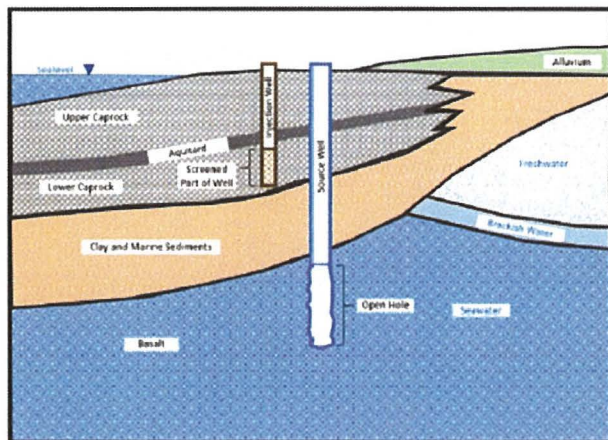


EXHIBIT B

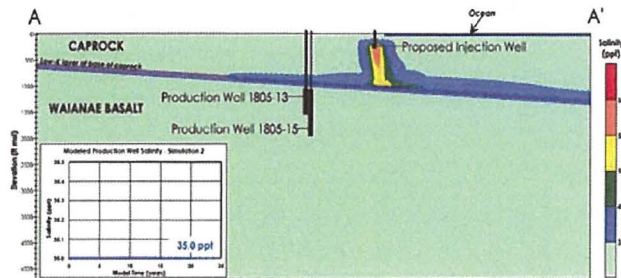
Ms. Case
April 28, 2021
Page 2

brine concentrate injection wells. The injection wells would be located in an underground vault and are required for the safe disposal of brine concentrate, a by-product of the reverse osmosis membrane demineralization process to be used at the desalination facility. The area is designated an Underground Injection Control (UIC) Area regulated by the State Department of Health (DOH). The UIC rules require the injection wells be located at a minimum distance of a quarter mile from the saltwater wells. The BWS property does not have sufficient area to accommodate this requirement. Thus, the injection wells must be located off-site. The injection wells would be approximately 300-feet deep and extend into the caprock saltwater formation as shown in the below figure. The fate and transport of the brine concentrate was modeled and due to its greater density would sink to the caprock-basalt contact (poorly permeable clay layer) and be diluted as it moves toward the ocean. The brine concentrate would not impact the benthic environment in the nearshore waters because of the heavier density. A final Environmental Impact Statement was filed in 2008 with the State Office of Environmental Quality Control and because BWS is obtaining a Federal grant from the U.S. Bureau of Reclamation, a National Environmental Policy Act Environmental Assessment would be developed with a Finding of No Significant Impact expected.

Two deep saltwater wells on the BWS property extend 1,600 and 2,050 feet into the underlying saltwater basalt formation. The clay layer would prevent recirculation of brine injected into the overlying caprock from entering the basalt formation. A water use permit for the two saltwater source wells will be submitted to the Commission on Water Resource Management.



Ms. Case
April 28, 2021
Page 3



B) Simulation 2 - Base of Caprock K = 0.1 ft/d


BWS is procuring the project through a design build operate maintain request for proposals (RFP) with construction estimated to be complete in 2024. The RFP for offeror qualifications was posted in March 2021.

BWS requests the construction Right of Entry permit (ROE) be issued while the easements are being processed to facilitate the upcoming design and construction of the injection wells, access road and utilities. The ROE is also needed so BWS can submit an injection well permit application to DOH, which has been identified as a critical path long lead time item that could impact the project schedule.

BWS would pay all costs related to surveying and mapping the easements, obtaining the necessary approvals for the creation and designation of the easements and preparing and recording the grant of easement document.

Please provide written concurrence of our request and any requirements for the easement acquisition. If you have any questions, please contact Michael Matsuo of our Land Division at (808) 748-5951 or Barry Usagawa of our Water Resources Division at (808) 748-5900.

Very truly yours,


ERNEST Y.W. LAU, P.E.
Manager and Chief Engineer

Attachment

